identified by a policy of rapid analysis by qf-PCR. However, they may have to be persuaded that, having undergone an invasive test with 1% miscarriage rate, they should accept a limited analysis because full karyotyping is too expensive. Many, given the choice, would probably prefer to have all of the information about their baby's chromosomes that the sample could provide. If a health service cannot afford to provide full karyotyping, then those who want the full range of information may want to pay the extra cost.

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Should obese women with polycystic ovary syndrome receive treatment for infertility?

Given the risks such women will face in pregnancy, they should lose weight first

Polycystic ovaries are seen at ultrasound in 20-25% of women, and the prevalence of polycystic ovary syndrome (PCOS) seems to be rising because of the current epidemic of obesity.[1] The syndrome accounts for 90-95% of women who attend infertility clinics with anovulation. The considerable risks in pregnancy associated with obesity are not usually appreciated when patients with PCOS attend clinics and request fertility treatment. Is it appropriate to offer treatment or to insist on weight loss? Or does any overweight woman have the right to receive treatment, irrespective of the possible outcome?

The syndrome is defined by any two out of the following criteria: infrequent or absent menstruation, indicating anovulation; hyperandrogenism; and polycystic ovaries diagnosed by ultrasound after the exclusion of other aetiologies of menstrual disturbance and hyperandrogenism.[2] At least 40% of women with PCOS are obese,[1] and they are more insulin resistant than weight matched women with normal ovaries. Increasing abdominal obesity is correlated with reduced menstrual frequency and fertility, together with greater insulin resistance.[1 3]

Pregnancy carries considerable risks for women who are obese; these include increased rates of congenital anomalies (neural tube and cardiac defects), miscarriage, gestational diabetes, hypertension, and problems during delivery.[4 5] Pregnancy exacerbates any underlying insulin resistance, and as a result women with PCOS and obesity have an increased risk of gestational diabetes.[6]

Increasingly many of these young women also have type 2 diabetes. If the diabetes is diagnosed before conception, patients are often treated for the coexistent features of the metabolic syndrome with statins, angiotensin converting enzyme (ACE) inhibitors, metformin, and thiazolidinediones, all of which are contraindicated in pregnancy. Because these women have irregular menstruation it is not uncommon, if they do conceive, for them not to realise until after organogenesis has occurred. Unfortunately type 2 diabetes is still commonly regarded as being "mild diabetes" but the outcomes of pregnancy in women with type 2 diabetes are much worse than in the general population and are at least equivalent to, if not slightly worse than, in women with type 1 diabetes.[7]

Overweight mothers are more likely than others to have hypertension and thromboembolism, leading to a higher risk of maternal mortality. In 2000-2, of the 261 deaths reported to the UK Confidential Enquiry into Maternal Health,[8] 78 women (35%) were obese, compared with 23% of women in the general population, and of these more than a quarter had a body mass index greater than 35. Some of the women who died were so obese that they required special equipment for delivery or special arrangements for caesarean section because their weight exceeded the maximum for the operating table.[8]

Several studies have shown that weight loss in women with PCOS improves the endocrine profile, the menstrual cycle, the rate of ovulation, and the likelihood of a healthy pregnancy.[9] Even a modest loss of 5% of total body weight can achieve a reduction of central fat, an improvement in insulin sensitivity, and restoration of ovulation. Lifestyle modification is clearly a key component for the improvement of reproductive function in overweight women with anovulation and PCOS.[10]

Such women should be encouraged to lose weight before having treatments to induce ovulation (such as clomifene citrate or gonadotrophins), both to improve the likelihood of ovulation and to enhance ovarian response. Monitoring treatment is also harder in obese women because their ovaries are more difficult to see

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on ultrasound scans, thus raising the risk of missing multiple ovulation and multiple pregnancy. National guidelines in the United Kingdom for managing overweight women with PCOS advise weight loss, preferably to a body mass index of less than 30, before starting drugs for ovarian stimulation.[10]

The use of insulin lowering or sensitising agents has excited much interest in the management of PCOS. Metformin inhibits hepatic production of glucose, thereby decreasing insulin secretion, and enhances insulin sensitivity in cells. A systematic review concluded that metformin benefits women with PCOS by reducing serum insulin concentrations and thereby lowering androgen levels, facilitating ovulation, and improving reproductive outcomes.[11] Metformin seems to be less effective for women with anovulation and extreme obesity, although perhaps a higher dose is required than currently prescribed.[12]

Many obese women who wish to conceive are now prescribed metformin, often at body weights greater than would be permissible for treatment to induce ovulation. Those who ovulate and conceive while remaining obese will have to face considerable additional risks during pregnancy. Is it ethical to treat these women with metformin unless they have already lost weight? At the very least the risks of the pregnancy to mother and child should be explained, understood, and actively managed before embarking on treatment. The importance of encouraging and achieving weight loss as first line treatment cannot be overestimated. We suggest that women with obesity and PCOS should defer even treatment with metformin until they reach a target body mass index of 35 or less.

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Lost in transition? Between paediatric and adult services

It's time to improve the transition of adolescents from paediatric to adult services

Preventing adolescents becoming lost in the transfer between paediatric and adult health services is a major challenge for healthcare providers, paediatric and adult alike. Until recently British health services have largely ignored adolescents.[1] But as increasing numbers of young people are surviving into adulthood with illnesses they developed in childhood, the need for transitional care appropriate to their age and development is becoming more obvious and acute.[2] Adolescence is also a time when adult behaviours become established and therefore represents a window of opportunity to promote healthy behaviour and influence the public health burden of tomorrow's adults.[1]

Transitional care is a multidimensional, multidisciplinary process that addresses not only the medical needs of adolescents as they move from children's services to adult services but also their psychosocial, educational, and vocational needs. The need for such services has been shown by many surveys of young people with various chronic conditions and their care givers,[3–6] and is supported by policy documents in the United Kingdom and United States.[2–9] To date, however, there has been a lack of robust evidence[3] to support development in transitional care. A recent multicentre trial of a transitional care programme in the UK has begun to address this deficit, with preliminary reports of positive outcomes.[10]

Although there is no evidence that particular models of transitional care are more effective than others,[3] evidence exists to support certain components, including planning and coordination,[6 10] opportunities for young people to meet the adult healthcare team who will look after them before the transfer,[11] and to be seen independently from their parents or caregivers.[12] As well as dealing with medical issues, transitional care also needs to include skills training, including self advocacy and the ability to negotiate services independently; education about general adolescent health issues such as substance abuse, mental health,

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